T R A N S M I T T A L F O R M

To: Bureau of Design and Environment
Attn: Mr. Matthew Sunderland
From: Illinois Natural History Survey
Re: Wetland Mitigation Monitoring Report

Route and Location

Route: FAP 857 (IL 14)
County: Saline
Project Area: 35 acres just west of Harrisburg off IL 13 (Harrisburg 2)
Section: 101BR-6
Sequence Number: 547

Conducted By: Dennis Keene, Dave Ketzner, Paul Marcum, and Brad Zercher
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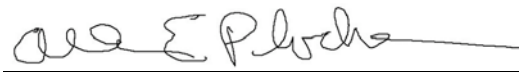
Dates Conducted: October 5-6, 2011

Project Summary:

This is a wetland mitigation monitoring project (Harrisburg 2) located on approximately 35 acres north of IL 13 just west of Harrisburg. This parcel is located in the SW/4 of Section 17 in T. 9 S. and R. 6 E. in Saline County. This is the fourth year of monitoring this site (Harrisburg 2). We calculated that this site had about 22 acres of wetland this year (2011). The attached report includes an explanation of monitoring methods and results. We also discuss the progress towards attaining the project goals. Additionally, wetland determinations and the computed FQI of the area along with photos and maps of the area are included.

Signed: 

Dr. Allen E. Plocher
INHS/IDOT Project Coordinator

Date: February 2012

2011 Wetland Mitigation Monitoring Report for Harrisburg Site 2, FAP 857 (IL 14), Fox River Bridge Replacement: Saline County, Illinois

Introduction:

This is a wetland mitigation monitoring site report for Harrisburg Site 2 (FAP 857, IL 14). This site is mitigation for the impact caused by the proposed bridge replacement at the Fox River crossing on IL Route 14 in White County. On October 5-6, 2011 we evaluated a site near Harrisburg that hopefully, if it succeeds, will be used as a wetland compensation site. This is the fourth year of the proposed five years of monitoring at the site. This wetland mitigation site is located on the western edge of the city of Harrisburg, IL. The parcel is located in the SW/4 of Section 17 in T. 9 S. and R. 6 E. in Saline County. Figure 1 (next page) is a map of the location of the site.

The goal of this project is to establish 10.2 acres of forested wetland. A wetland mitigation site assessment was previously performed on this site (Marcum *et al*. 2006). Significant site changes have occurred since that survey. The north part of the site has been reworked and preexisting vegetation was removed. Trees/shrubs that were originally in the north to northeast area of the site were removed. Soils were scraped and compacted on most of the site. At this site 4.85 acres of wetlands were delineated in 2006 (*ibid*.). As proposed in the monitoring plan (IDOT 2006), shrub stage wetland trees were planted along with a wetland grass mixture. Vegetation species lists, soil, and hydrology characteristics, as well as wetland determination forms are included in this report in Appendix 1. Project goals, objectives, and performance criteria are incorporated in this report, as are monitoring methods, monitoring results, summary information, and recommendations.

Harrisburg, Site 2 Wetland Mitigation Site
(IL 14, FAP 857)

General Study Area and Vicinity

from the USGS Topographic Series, Harrisburg, IL, 7.5-minute Quadrangle (USGS 1996)
contour interval is 5 feet

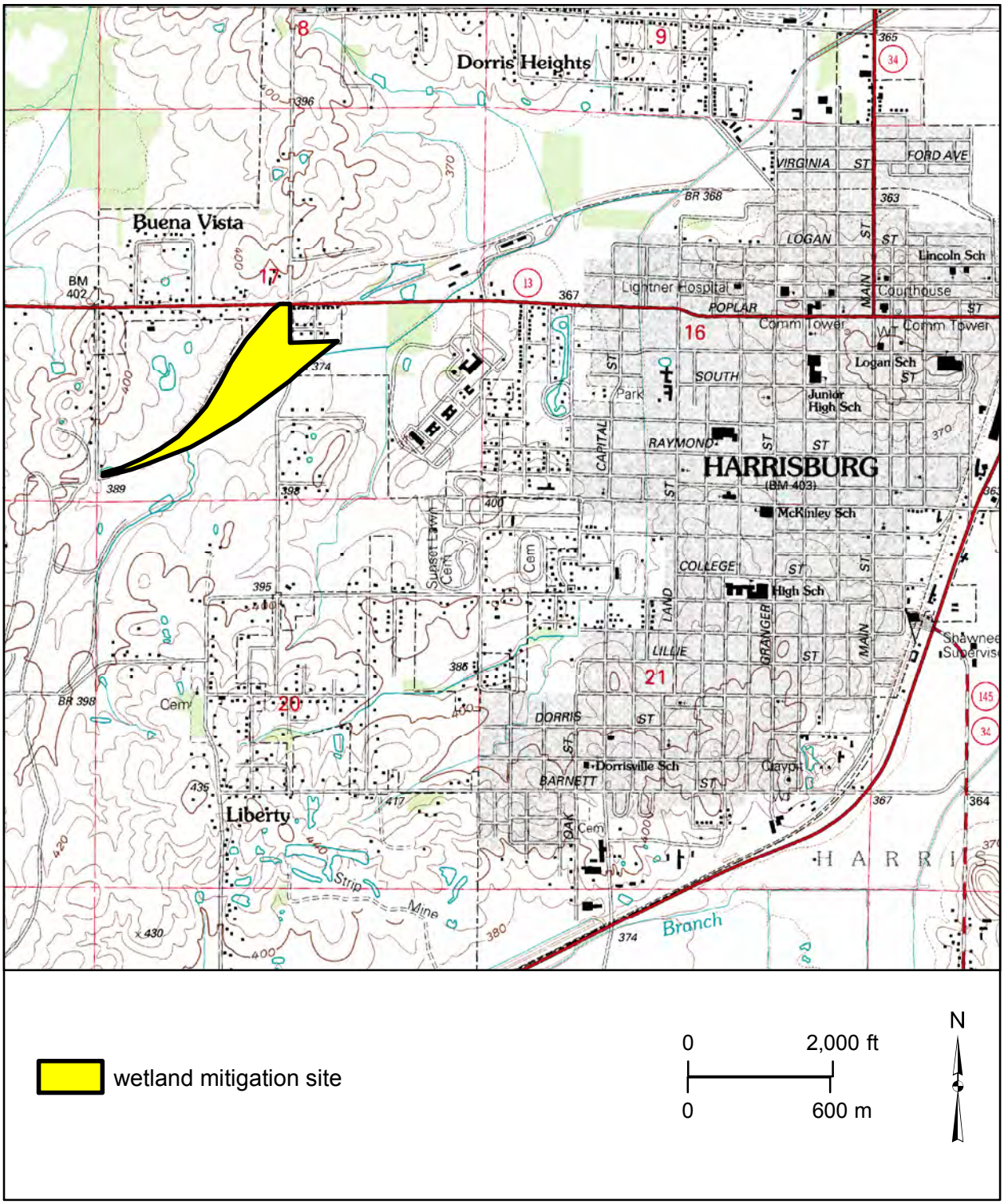


Figure 1 (Miner et el. 2011)

Goals, Objectives, and Performance Criteria

Goals, objectives, and performance criteria follow those specified in the Illinois Department of Transportation (IDOT) project request (Sunderland 2008). Performance criteria are based on those specified in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987). Each goal should be attained by the end of the five-year monitoring period. Goals, objectives, and performance criteria are listed below.

Project Goal #1: The created wetland mitigation area should be determined to be jurisdictional wetland as defined by the Corps of Engineers Wetlands Delineation Manual (*ibid*.).

Objective: The created wetland should consist of approximately 10.2 acres (4.1 ha) of wet floodplain forest. It should satisfy the three criteria of the federal wetland definition: dominant hydrophytic vegetation, hydric soils, and wetland hydrology.

Performance Criteria:

A. Predominance of Hydrophytic Vegetation. More than 50% of the dominant plant species must be hydrophytic.

B. Presence of Wetland Hydrology. The site must have soils saturated to the surface (water table within 12 inches of the surface) or be inundated to a depth of less than 2 meters (6.6 ft) for at least 12.5% of the growing season (*ibid.*). In some cases wetland hydrology can be met when a site is inundated or saturated for 5% to 12.5% of the growing season (*ibid.*).

C. Presence of Hydric Soils. Hydric soil characteristics should be present, or conditions favorable for hydric soil formation should persist at the site.

Project Goal #2: The forested wetland plant community should meet standards for survival of planted species and overall floristic composition.

Objective: The wetland restoration should compensate in-kind for loss of forested wetlands. The wetland compensation should be composed of vegetation characteristic of forested wetlands. Planted trees should dominate the site along with native non-weedy vegetation.

Performance Criteria:

A. Tree Survival Rate: There should be a 90% survival rate of the planted trees by the end of a five-year monitoring period. The wetland mitigation-monitoring plan originally called for a total of 715 trees for the whole project but more trees were planted in 2009. There should be at least 644 (90% survival rate) live planted trees each year. Trees should be replanted if needed during the monitoring period.

B. Herbaceous Cover: Including herbaceous cover, no single species should constitute more than 25% of the surviving species.

C. Native Vegetation: Native vegetation, excluding weedy species and exotics such as *Phragmites australis, Phalaris arundinacea, Typha* spp., and *Lythrum salicaria*, should cover at least 70% of the compensatory mitigation site. Spraying to control or limit the spread of *Phragmites australis* or other weedy vegetation will be done by various organizations mentioned in the *Wetland Compensation Plan* sent by IDOT (2006).

Methods

Project Goal #1:

Sites were divided based on presence of dominant hydrophytic vegetation since hydric soils and wetland hydrology were present throughout most of the Wetland Compensation Site. Sites are delineated on the site map (Figure 3) located in Appendix 1 following the wetland delineation forms.

A. Predominance of Hydrophytic Vegetation. The method for determining dominant vegetation at a wetland site is described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). This method is based on aerial coverage estimates for individual plant species. Each of the dominant plant species is then assigned its wetland indicator status rating (Reed 1988). Any plant rated facultative or wetter (*i.e*., FAC, FAC+, FACW, and OBL) is considered hydrophytic. A predominance of hydrophytic vegetation in the wetland plant community exists if more than 50% of the dominant species present are hydrophytic.

B. Presence of Wetland Hydrology. The extent of wetland hydrology at the Harrisburg Site 2 Wetland Compensation Site was monitored by the Illinois State Geological Survey and is shown on the wetland hydrology map (Miner *et al*. 2011) in Figure 2. Wetland hydrology occurs when inundation or saturation to land surface is present for greater than 5% of the growing season (11 days at this site) where the soils and vegetation parameters stated in the Corps of Engineers Wetland Delineation Manual also are met; if either is lacking, then inundation or saturation must be present for greater than 12.5% of the growing season (26 days at this site) to satisfy wetland hydrology criteria (Environmental Laboratory 1987). Using the 2010 Midwest Region supplement (U.S. Army Corps of Engineers 2010) standard requires 14 or more consecutive days of flooding or ponding, or a water table 12 in. (30 cm) or less below the soil surface during the growing season.

Inundation and saturation at the site were monitored using a combination of 30 monitoring wells and five staff gauges. Water levels were measured weekly from March until mid-May and monthly during the rest of the year. Additional details regarding site conditions and monitoring results for wetland hydrology in 2010 - 2011 are summarized in the ISGS *Annual Report for Active IDOT Wetland Mitigation and Hydrologic Monitoring Sites, September 1, 2010 to August 31, 2011* (Miner *et al*. 2011). Also, Illinois Natural History Survey (INHS) personnel utilized hydrologic field indicators to determine the presence or absence of wetland hydrology as described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987).

C. Presence of Hydric Soils. INHS personnel examined soil cores for field indicators to determine the presence or absence of hydric soils as described in the *Corps of Engineers*

Wetlands Delineation Manual (Environmental Laboratory 1987) and the *Field Indicators of Hydric Soils in the United States* (USDA, NRCS 2010). Soil profile descriptions from the sites can be found in Appendix 1.

Project Goals #2: All planted trees were counted and identified when possible by INHS personnel tracing through the site. All vegetation including species dominants were identified at the various sites and species lists were compiled. Photos of existing vegetation are presented in Appendix 2.

Results and Discussion

Project Goal #1: The created wetland mitigation area should be determined to be jurisdictional wetland as defined by the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987).

Performance Criteria

A. Predominance of Hydrophytic Vegetation.
Dominant hydrophytic vegetation is present at six out of eleven sites (2, 3, 4, 6, 7, 9). In the shrub/sapling stage layer, planted tree species pecan (*Carya illinoensis*, FACW), swamp white oak (*Quercus bicolor*, FACW+), Shumard's oak (*Quercus shumardii*, FACW-)/pin oak (*Quercus palustris,* FACW) did not constitute enough coverage of any of the sites to be considered dominants.

The herbaceous layer at Site 1 is dominated by red top (*Agrostis gigantea*, FACW), broom sedge (*Andropogon virginicus,* FAC-), late boneset (*Eupatorium serotinum,* FAC+), tall fescue (*Festuca arundinacea,* FACU+), and Canada goldenrod (*Solidago canadensis*, FACU). Site 1 did not meet the dominant hydrophytic vegetation criterion.

The herbaceous layer at Site 2 area is dominated by broom sedge (*Andropogon virginicus,* FAC-), barnyard grass (*Echinochloa muricata,* OBL) and fall panicum (*Panicum dichotomiflorum,* FACW-). Site 2 met the dominant hydrophytic vegetation criterion.

The herbaceous layer at site 3 is dominated by barnyard grass (*Echinochloa muricata,* OBL) and common reed (*Phragmites australis,* FACW+). Site 3 met the dominant hydrophytic vegetation criterion.

The herbaceous layer at site 4 is dominated by barnyard grass (*Echinochloa muricata,* OBL), fall panicum (*Panicum dichotomiflorum,* FACW-), and common reed (*Phragmites australis,* FACW+). Site 4 met the dominant hydrophytic vegetation criterion.

The herbaceous layer at Site 5 is dominated by red top (*Agrostis gigantea*, FACW), common ragweed (*Ambrosia artemisiifolia,* FACU), broom sedge (*Andropogon virginicus,* FAC-), late boneset (*Eupatorium serotinum,* FAC+) and by Canada goldenrod (*Solidago canadensis*, FACU). Site 5 did not meet the dominant hydrophytic vegetation criterion.

The herbaceous layer at Site 6 is dominated by red top (*Agrostis gigantea*, FACW), swamp marigold (*Bidens aristosa,* FACW), late boneset (*Eupatorium serotinum,* FAC+), and by

Canada goldenrod (*Solidago canadensis*, FACU). Also found in the shrub/sapling stage layer were a few white oak (*Quercus alba*, FACU) and basket oak (*Quercus michauxii*, FACW) that were planted but not on the planted list. Site 6 met the dominant hydrophytic vegetation criterion.

The herbaceous layer at Site 7 is dominated by switchgrass (*Panicum virgatum,* FAC+). Site 7 met the dominant hydrophytic vegetation criterion.

The herbaceous layer at Site 8 is dominated by broom sedge (*Andropogon virginicus,* FAC-), tall fescue (*Festuca arundinacea,* FACU+), and by Canada goldenrod (*Solidago canadensis*, FACU). Site 8 did not meet the dominant hydrophytic vegetation criterion.

The herbaceous layer at Site 9 is dominated by common reed (*Phragmites australis*, FACW+) and narrow-leaved cattail (*Typha angustifolia,* OBL). Site 9 met the dominant hydrophytic vegetation criterion.

The herbaceous layer at Site 10 is dominated by broom sedge (*Andropogon virginicus,* FAC-), swamp marigold (*Bidens aristosa,* FACW), and by Canada goldenrod (*Solidago canadensis*, FACU). Site 10 did not meet the dominant hydrophytic vegetation criterion.

The herbaceous layer at Site 11 is dominated by red top (*Agrostis gigantea*, FACW) and common ragweed (*Ambrosia artemisiifolia,* FACU). Site 11 did not meet the dominant hydrophytic vegetation criterion.

B. Presence of Wetland Hydrology.

The site must have soils saturated to the surface (water table within 12 inches to the surface) or be inundated to a depth of less than 2 meters (6.6 ft) for at least 12.5% of the growing season (Environmental Laboratory 1987) without hydric soils and dominant hydrophytic vegetation to be a wetland. The site must have soils saturated to the surface (water table within 12 inches to the surface) or be inundated to a depth of less than 2 meters (6.6 ft) for at least 5% of the growing season (Environmental Laboratory 1987) with hydric soils and dominant hydrophytic vegetation to be a wetland. Results from 2011 are summarized in Table 1 below.

Table 1. Results of 2011 wetland hydrology monitoring.

Site	> 5% wetland hydrology and >12.5% wetland hydrology
1	0
2	100%
3	100%
4	100%
5	56%
6	79%
7	74%
8	70%
9	100%
10	70%
11	11%

Harrisburg, Site 2 Wetland Mitigation Site
(IL 14, FAP 857)

Estimated Areal Extent of 2011 Wetland Hydrology

September 1, 2010 though August 31, 2011

Map based on National Agricultural Imagery Program (NAIP) digital orthophotograph,
Harrisburg NW quarter quadrangle, taken June 25, 2010 (USDA-FSA 2010) and ISGS topography

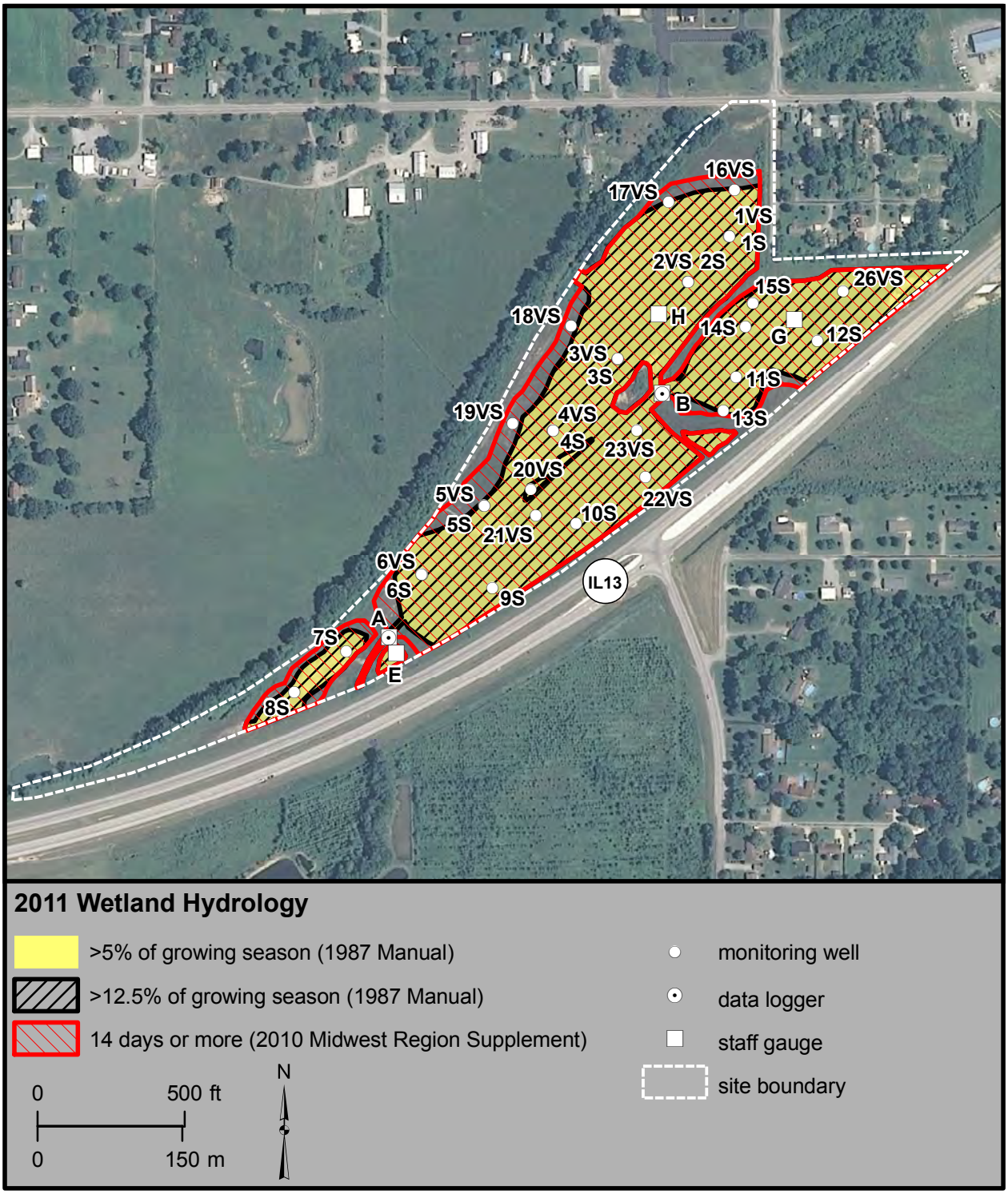


Figure 2 (Miner et el. 2011)

C. Presence of Hydric Soils.
Soils were examined throughout the project site. Where Sites 6, 10, and 11 now exist was a floodplain forest that now has been cleared. The whole mitigation monitoring site has been excavated to some extent to create a greater surface area for floodwater retention, resulting in more wetlands. The whole site is heavily compacted and soil probing is problematic no matter if the site is wet or dry. The soils in this area have been impacted to the extent that they will be described as scraped and not given a soil series name. The soils at all of the sites appear to satisfy the hydric soil criterion.

The tables below give a brief soil description of the hydric areas of found at this site.

Site 1 (hydric soil - scraped area)

Hor-izon	Depth	Matrix Color	Redox Concentrations	Texture	Structure
	0-2 in	10YR 4/1	CMP 7.5YR 4/6	sil	m
	2-6 in	10YR 4/1	CFP 7.5YR 4/6 CFP 7.5YR 5/8	sil	m
	6-20 in	10YR 5/1	CFP 7.5YR 4/6 CFP 7.5YR 5/8	sil	m

Site 2 (hydric soil - scraped area)

Hor-izon	Depth	Matrix Color	Redox Concentrations	Texture	Structure
	0-7 in	10YR 5/1	CMP 7.5YR 4/6 CFP 7.5YR 5/6	sil	m
	7-14 in	10YR 5/1	CMP 7.5YR 4/6 CFP 7.5YR 5/6	sil	m
	14 – 20 in	10YR 6/1	CFP 7.5YR 4/6 CFP 7.5YR 5/8	sil	m

Site 3 (hydric soil - scraped area)

Hor-izon	Depth	Matrix Color	Redox Concentrations	Texture	Structure
	0-8 in	10YR 5/1	CMP 7.5YR 4/6	sil	m
	8-20 in	10YR 5/1	CMP 7.5YR 4/6 CFP 7.5YR 5/8	sil	m

Site 4 (hydric soil - scraped area)

Hor-izon	Depth	Matrix Color	Redox Concentrations	Texture	Structure
	0-7 in	10YR 5/1	CMP 7.5YR 4/6	sil	m
	7-12 in	10YR 5/1	CFP 7.5YR 5/8	sil	m
	12-20 in	10YR 5/1	MFP 7.5YR 5/8	sil	m

Sites 5 - 8 (hydric soil - scraped area)

Hor-izon	Depth	Matrix Color	Redox Concentrations	Texture	Structure
	0-7 in	10YR 5/2 N 4/	CMP 7.5YR 5/8 FFP 7.5YR 4/6	sil	m
	7-15 in	2.5Y 5/1, 6/1, 7/1 N 4/	CMP 7.5YR 5/8 FFP 7.5YR 4/6 FMP 10YR 5/6	sil	m
	15-25 in	2.5Y 5/1	MMP 7.5YR 5/8 FFP 7.5YR 4/6 FFP 10YR 5/6	sil	m

Site 9 (hydric soil - scraped area)

Hor-izon	Depth	Matrix Color	Redox Concentrations	Texture	Structure
	0-4 in	10YR 5/1	CMP 7.5YR 4/6	sil	m
	4-8 in	10YR 4/1	CMP 7.5YR 4/6 CFD 10YR 5/4	sicl	m
	8–20 in	N 4/	CFP 7.5YR 5/8 CFD 10YR 5/4	sicl	m

Site 10 (hydric soil - scraped area)

Hor-izon	Depth	Matrix Color	Redox Concentrations	Texture	Structure
	0-2 in	10YR 4/2		sil	m
	2-4 in	10YR 4/2		sil	m
	4-7 in	10YR 6/1	CFP 7.5YR 5/8	sil	m
	7-12 in	10YR 5/1	CFP 7.5YR 4/6	sil	m
	12-20 in	10YR 5/1	CFP 7.5YR 4/6	sil	m

Site 11 (hydric soil - scraped area)

Hor-izon	Depth	Matrix Color	Redox Concentrations	Texture	Structure
	0-5 in	10YR 4/2	CMP 7.5YR 4/6	sil	m
	5-12 in	10YR 5/1	CFP 7.5YR 5/8	sil	m
	12-20 in	N 4/	CFP 7.5YR 5/8	sil	m

Wetland determination forms can be found in Appendix 1.

Project Goal #2: The forested wetland plant community should meet standards for survival of planted species and overall floristic composition.

Performance Criteria:

Tree Density (live planted trees/acre).

Live trees were counted and species tallied for the entire site. At this site at least 644 live-planted trees are required each year. The sapling/shrub stage wetland tree species which were planted at the sites include the following: pecan (*Carya illinoensis*, FACW), swamp white oak (*Quercus bicolor*, FACW+), and pin oak (*Quercus palustris,* FACW). Other sapling/shrub stage trees which were planted but not on the tree plant list include the following: basket oak (*Quercus michauxii),* shumard oak (*Quercus shumardii*), and white oak (*Quercus alba*). The number of individuals per species is presented below. This site had 687 sapling/shrub stage tree species present. This site meets the tree density project goal for 2011.

Planted Species	**Individuals**
Carya illinoensis (pecan)	172
Quercus alba (white oak) *	14
Quercus bicolor (swamp white oak)	199
Quercus michauxii (basket oak) *	5
Quercus palustris (pin oak)/*Quercus shumardii* (shumard oak)*	297
	687 sapling/shrub stage trees/10.2 acre

* Planted but not on tree plant list.

Floristic Composition.

As stated previously, no single species should constitute more than 25% cover at the site. Visual observation determined that Sites 1 – 6 and Site 10 meet this goal. Site 7 (*P. virgatum*), Site 8 (*F. arundinacea*), and Site 11 (*A. gigantea*) have single species that constitute more than 25% cover and Site 9 (*P. australis* and *T. augustifolia*) has two species that each constitute more than 25% cover. Thus, this goal is not met.

Also, native vegetation, excluding weedy species should cover at least 70% of the compensatory mitigation site. Only Site 7 (*Panicum virgatum*) meets the goal of at least 70% native cover.

Summary and Recommendations

Project Goal 1 (Wetlands):
This wetland mitigation monitoring site is located on a floodplain just west of Harrisburg. A mitigation site assessment was performed in 2006 (Marcum *et al*). The following community types existed at that time: non-native grassland, native grassland (prairie plantings), shrubland, mesic floodplain forest, marsh, wet meadow, and wet shrubland. After clearing and reworking some of the site, the following community types are now present: non-native grassland, marsh, wet prairie planting, wet meadows, and forblands. Most if not all 35 acres of the site had either hydric soils or hydric soil features caused by the site preparation and soil disturbance. About 22.6 out of 35 acres (65%) of the site had at least 5% wetland hydrology and about 22.4 out of 35 acres (64%) of this site had 12.5% or greater wetland hydrology during the growing season (Miner *et al*. 2011). Dominant hydrophytic vegetation occurred on approximately 14.4 out of 35 acres (41%) of the site. We calculated that this site had about 22 acres of wetland this year (2011). Project Goal 1 consists of obtaining 10.2 wetland acres at this site. Thus, this site meets Project Goal 1 for wetland acreage needed. Previously, total wetland acreage found after the initial site investigation in 2006 was 4.85 acres. (Marcum *et al.*). Total wetland acreage found after the first year of monitoring (Keene *et al*. 2008) this site was 1.74 acres. Total wetland acreage found after the second year (Keene *et al*. 2009) of monitoring was 24 acres. Total wetland acreage found after the third year (Keene *et al*. 2010) of monitoring was 17.6 acres. Water control structures were installed in the drainageway in 2008 and became operational in 2009. These structures are apparently the main reason wetland acreage increased after the first year of monitoring. While it seems that the water control structures were successful again this year, we believe that an additional board or two should be installed in the water control structures to raise the water level even higher in the drainageway. This would increase the overflow onto the site and ensure wetness on this site even during a drier than normal year.

Project Goal 2 (Tree Density and Floristic Composition):
Planted sapling/shrub stage trees overall survival count was 687. This marks a decrease of 22 trees at this site from the 2010 report (Keene *et al.* 2010). Site goal documentation suggests there should be a 90% (644) tree survival by the end of a five-year monitoring period. With the additional trees planted in 2009, and even with the decrease in tree survivorship in 2010 and 2011, this site still meets its needed allotment and project goal of at least 90% tree survivorship. Tree growth seems minimal to slow with most tree species again this past year and tree survivorship continues to be a concern. Soil compaction may be the most important factor limiting tree growth and health until the trees adjust to the growing conditions.

No single species should constitute more than 25% cover at the site. Sites 1-6 and Site 10 achieved this goal. Sites 7, 8, 9, and 11 did not meet this goal. More native species should be planted at all sites.

Native vegetation (excluding *Phragmites australis*, *Phalaris arundinacea*, *Typha* spp., and *Lythrum salicaria*) should cover at least 70% of the site. Only Site 7 (*Panicum virgatum*) meets the goal of at least 70% native cover.

It appears at the time of our field investigation this year that *Phragmites australis* continues to be a problem. There exists a healthy population of *P. australis* just south of the old railroad embankment along the north-northwest border of the site. Also, along the drainageway that bisects the site and in Site 9, *P. australis* and *Typha* spp. still occur. Continual mowing and spraying is needed to control these weedy species before they spread to the rest of the site.

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Appendix 1:

Wetland Report for the Wetland Mitigation Monitoring Report for FAP 857 (IL 14), Fox River Bridge Replacement: Saline County, Illinois

Project Description:

This is a wetland survey conducted for a wetland mitigation-monitoring project (FAP 857, IL 14) for the impact caused by the proposed bridge replacement at the Fox River crossing on IL Route 14 in White County. The following sources were examined while surveying the project area to determine wetland locations and boundaries: United States Geological Survey topographic map and National Wetland Inventory (NWI) map (Harrisburg 7.5 minute quadrangle); *Soil Survey of Saline County, Illinois* (Miles 1978)*;* aerial photographs; *National List of Plant Species That Occur In Wetlands: Illinois* (Reed 1998)*;* the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987)*;* and onsite vegetation, soils, topographic and hydrologic indicators. Eleven routine onsite wetland determinations were completed. Sites 2, 3, 4, 6, 7, and 9 satisfied the wetland criteria.

Each native plant species was assigned a "coefficient of conservatism" (C) (Taft et al. 1997), a subjective rating of species fidelity to undegraded natural communities, ranging from zero to ten. Conservative species - those more likely to be found in "pristine" natural areas - were assigned high numbers, whereas non-conservative species - those that occur in anthropogenically disturbed areas - were given lower numbers. Non-native species and those not identifiable to species level were not assigned a rating. The Floristic Quality Index (FQI) is computed as FQI = (mean C) X ($\sqrt{N}$), where mean C is the mean coefficient of conservatism for all native plant species at a site and N is the total number of native plant species at the site. In very general terms, higher FQI values for plant communities indicate more similarity to "pristine" natural areas, as compared to those communities with lower FQI values. Botanical nomenclature follows *Vascular Flora of Illinois* (Mohlenbrock 2002).

Wetland boundaries were recorded using a Trimble Global Positioning System. The locations of the determination sites were overlain on a digital orthoquad (DOQ), and approximate wetland acreages were determined for the site using Arc/GIS 10.0. Printouts of the DOQ are included in this appendix, after the data forms.

Site 1: This non-native grassland is located in the southwest part of the project area, south of an old railroad line, and north of IL Rte. 13. Although this site had hydric soils, it lacked dominant hydrophytic vegetation and wetland hydrology. Thus, we determined that this site is not a wetland. The NWI coded this site as U (Upland). The FQI is 12.8 and the mean-rated quality is 2.0 with the planted trees. The FQI is 11.6 and the mean-rated quality is 1.8 without planted trees. These values are indicative of an average natural quality.

Site 2: This wet meadow occupies the west part of the site, north of the drainage ditch that bisects the site and south of an old railroad line. Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present; thus, this site meets the three criteria of a wetland. The NWI coded this site as U (Upland). This site functions as a floodwater storage area and provides poor to average wildlife habitat quality. The FQI is 7.9 and the mean-rated quality is 1.7. These values are indicative of a low natural quality. This wet meadow comprises approximately 0.15 acres within the monitoring site.

Site 3: This wet meadow occupies the west part of the site, north of the drainage ditch that bisects the site and south of an old railroad line. Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present; thus, this site meets the three criteria of a wetland. The NWI coded this site as U (Upland). This site functions as a floodwater storage area and provides poor to average wildlife habitat quality. The FQI is 12.9 and the mean-rated quality is 2.6. These values are indicative of an average natural quality. This wet meadow comprises approximately 0.08 acres within the monitoring site.

Site 4: This wet meadow occupies the west part of the site, north of the drainage ditch that bisects the site and south of an old railroad line. Dominant hydrophytic vegetation, hydric soils, and wetland hydrology are present; thus, this site meets the three criteria of a wetland. The NWI coded this site as U (Upland). This site functions as a floodwater storage area and provides poor to average wildlife habitat quality. The FQI is 13.9 and the mean-rated quality is 2.4 with planted trees. The FQI is 12.4 and the mean-rated quality is 2.2 without planted trees. These values are indicative of an average natural quality. This wet meadow comprises approximately 0.04 acres within the monitoring site.

Site 5: This forbland occurs north/northeast of the drainage ditch and south/southeast of the old railroad embankment. Although this site lacks dominant hydrophytic vegetation, this site had hydric soils and about 56% of the site had 12.5% wetland hydrology. Thus, about 56% of this site is a wetland. The NWI coded this site as U (Upland). The FQI is 12.3 and the mean-rated quality is 2.0 with the planted trees. The FQI is 9.9 and the mean-rated quality is 1.7 without planted trees. These values are indicative of an average natural quality. This forbland comprises approximately 4.4 acres within the monitoring site.

Site 6: This wet forbland occurs north of IL Rte. 13 and east of the old railroad embankment. Based on the presence of dominant hydrophytic vegetation, hydric soils, and 79% of the site at 12.5% wetland hydrology, we determined that 79% of this site is a wetland. The NWI coded this site as U (Upland). This site functions as a floodwater storage area and provides poor to average wildlife habitat quality. The FQI is 20.9 and the mean-rated quality is 2.7 with the planted trees. These values are indicative of a high natural quality and this site may be considered an environmental asset. The FQI is 17.9 and the mean-rated quality is 2.5 without planted trees. These values are indicative of an average natural quality. This wet forbland comprises approximately 7.0 acres within the monitoring site.

Site 7: This wet prairie occurs north of IL Rte. 13 and just south of the drainageway that bisects the site. Based on the presence of dominant hydrophytic vegetation, hydric soils, and 74% of the site at 12.5% wetland hydrology, we determined that 74% of this site is a wetland. The NWI coded this site as U (Upland). This site functions as a floodwater storage area and provides poor to average wildlife habitat quality. The FQI is 20.9 and the mean-rated quality is 2.7 with the planted trees. These values are indicative of a high natural quality and this site may be considered an environmental asset. The FQI is 17.9 and the mean-rated quality is 2.5 without planted trees. These values are indicative of an average natural quality. This wet prairie comprises approximately 5.8 acres within the monitoring site.

Site 8: This non-native grassland is found in the east part of the site, just north of IL 13 and north and south of the drainageway that bisects the site. Although this site lacks dominant hydrophytic vegetation, this site had hydric soils and 70% of the site had 12.5% wetland hydrology. Thus, this 70% of this site is a wetland. The NWI coded this site as U (Upland). The FQI is 16.8 and the mean-rated quality is 2.3. These values are indicative of an average natural quality. This non-native grassland comprises approximately 2.6 acres within the monitoring site.

Site 9: This marsh is found in the east part of the site, just north of IL 13. This site has dominant hydrophytic vegetation, hydric soils, and wetland hydrology. Thus, we determined that this site is a wetland. The NWI coded this site as U (Upland). This site functions as a floodwater storage area and provides poor to average wildlife habitat quality. The FQI is 21.4 and the mean-rated quality is 2.7. These values are indicative of a high natural quality and this site may be considered an environmental asset. This marsh grassland comprises approximately 1.3 acres within the monitoring site.

Site 10: This forbland is found in the north part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment. This site has hydric soils and 70% of the site has 12.5% wetland hydrology but it lacks dominant hydrophytic vegetation. Thus, the area with 12.5% wetland hydrology is a wetland. The NWI coded this site as U (Upland). The FQI is 17.1 and the mean-rated quality is 2.5 with the planted trees. The FQI is 15.1 and the mean-rated quality is 2.3 without planted trees. These values are indicative of an average natural quality. This forbland comprises approximately 0.4 acres within the monitoring site.

Site 11: This forbland is found in the north part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment. This site has hydric soils and 11% of the site has 12.5% wetland hydrology but lacks dominant hydrophytic vegetation. Thus, the area with 12.5% wetland hydrology is a wetland. The NWI coded this site as U (Upland). The FQI is 23.1 and the mean-rated quality is 2.6 with the planted trees. The FQI is 21.2 and the mean-rated quality is 2.4 without planted trees. These values are indicative of a high natural quality and this site may be considered an environmental asset. This forbland comprises approximately 0.3 acres within the monitoring site.

Stream Description and Characterization

One main drainageway is present within the monitoring site assessment area. This drainageway, an unnamed tributary to the West Harrisburg Ditch, flows from the southwest corner of the project area across the middle of the site and exits at the east edge of the project toward Harrisburg Site 1. This unnamed tributary, between 2 and 8 ft wide, is straightened and channelized. Water was 2.5 ft deep in areas (mainly near the water control structure) and shallower in most other areas. There was no water flowing at the time of the field investigation. Drainageway substrate consisted of a silt-clay composition. This unnamed tributary drains into the Middle Fork of the Saline River approximately 3.5 mi to the northeast. The Middle Fork of the Saline River then empties into the Saline River, which flows into the Ohio River. The watershed area above the monitoring site is approximately 1 mi^2. The USGS hydrologic unit code for this basin is 05140204 (Saline River).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 1 (page 1 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: Southwest part of the site, south of an old railroad line, and north of IL Rte. 13

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. *Agrostis gigantea*	FACW	herb
2. *Andropogon virginicus*	FAC-	herb
3. *Eupatorium serotinum*	FAC+	herb
4. *Festuca arundinacea*	FACU+	herb
5. *Solidago canadensis*	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 40%

Hydrophytic vegetation: Yes: No: X
Rationale: Only 40% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Belknap silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 4/1
Other indicators: none

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 1 (page 2 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: Southwest part of the site, south of an old railroad line, and north of IL Rt. 13

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by precipitation, sheet flow from any surrounding higher areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: none

Wetland hydrology: Yes: No: X
Rationale: Well data collected by the ISGS substantiated that this site did not have any wetland hydrology (Miner *et al* 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: No: X
Rationale for decision: Although this site had hydric soils, it lacked dominant hydrophytic vegetation and wetland hydrology. Thus, we determined that this site is not a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 1 (page 3 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: Southwest part of the site, south of an old railroad line, and north of IL Rt. 13

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Agrostis gigantea	**red top**	**herb**	FACW	0
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Ambrosia trifida	giant ragweed	herb	FAC+	0
Ampelopsis cordata	raccoon grape	woody vine	FAC+	2
Andropogon virginicus	**broom sedge**	**herb**	FAC-	1
Aster lanceolatus	panicled aster	herb	FACW	3
Aster pilosus	hairy aster	herb	FACU-	0
Bidens aristosa	swamp marigold	herb	FACW	1
Campsis radicans	trumpet creeper	herb	FAC	2
♣*Carya illinoensis*	pecan	shrub	FACW	6
Chamaesyce maculata	milk spurge	herb	UPL	0
Chamaesyce nutans	nodding spurge	herb	FACU-	0
Cirsium discolor	field thistle	herb	UPL	3
Cirsium vulgare	bull thistle	herb	FACU-	*
Conoclinium coelestinum	mistflower	herb	FAC+	3
Conyza canadensis	horseweed	herb	FAC-	0
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Dactylis glomerata	orchard grass	herb	FACU	*
Daucus carota	Queen-Anne's-lace	herb	UPL	*
Desmodium canescens	hoary tick trefoil	herb	UPL	4
Dichanthelium acuminatum	panic grass	herb	FAC	2
Diodia virginiana	large buttonweed	herb	FACW	4
Diospyros virginiana	persimmon	shrub	FAC	2
Echinochloa muricata	barnyard grass	herb	OBL	0
Elaeagnus umbellata	autumn olive	shrub	UPL	*
Eupatorium serotinum	**late boneset**	**herb**	FAC+	1
Festuca arundinacea	**tall fescue**	**herb**	FACU+	*
Fraxinus lanceolata	green ash	shrub	FACW	2
Iva annua	marsh elder	herb	FAC	0
Juncus interior	inland rush	herb	FAC+	3
Liquidambar styraciflua	sweet gum	shrub	FACW	6
Lonicera japonica	Japanese honeysuckle	woody vine	FACU	*
Lonicera maackii	Amur honeysuckle	shrub	UPL	*

* Non-native species
♣Planted tree species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 1 (page 4 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: Southwest part of the site, south of an old railroad line, and north of IL Rt. 13

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Oenothera biennis	evening primrose	herb	FACU	1
Panicum dichotomiflorum	fall panicum	herb	FACW-	0
Panicum virgatum	switchgrass	herb	FAC+	4
Paspalum pubiflorum glabrum	beadgrass	herb	FACW	3
Passiflora incarnata	large passion-flower	herb	FACU	3
Physalis subglabrata	smooth ground cherry	herb	UPL	0
Prunus serotina	wild black cherry	shrub	FACU	1
Pseudognaphalium obtusifolium	cudweed	herb	UPL	2
Pyrus calleryana	Bradford pear	shrub	UPL	*
♣*Quercus palustris*	pin oak	shrub	FACW	4
Rhus copallina	winged sumac	shrub	UPL	3
Rosa multiflora	multiflora rose	shrub	FACU	*
Setaria faberi	giant foxtail	herb	FACU+	*
Setaria glauca	yellow foxtail	herb	FAC	*
Sida spinosa	prickly sida	herb	FACU	*
Solidago canadensis	**Canada goldenrod**	**herb**	FACU	1
Sorghastrum nutans	Indian grass	herb	FACU+	4
Sorghum halepense	Johnson grass	herb	FACU	*
Toxicodendron radicans	poison ivy	herb	FAC+	1
Ulmus americana	American elm	herb	FACW-	5
Verbena urticifolia	white vervain	herb	FAC+	3
Vitis aestivalis	summer grape	herb	FACU	4

* Non-native species
♣Planted tree species

mCv = 2.0 (with planted tree species)
FQI = 12.8 (with planted tree species)
mCv = 1.8 (without planted tree species)
FQI = 11.6 (without planted tree species)

Determined by: Dennis J. Keene (soils and hydrology)
David Ketzner and Paul Marcum (vegetation and hydrology)
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Prairie Research Institute
Illinois Natural History Survey
Wetland Science Program
1816 South Oak St.
Champaign, IL 61820
(217) 244-0873 (Keene)

ROUTINE ON-SITE WETLAND DETERMINATION
Site 2 (page 1 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. *Andropogon virginicus*	FAC-	herb
2. *Echinochloa muricata*	OBL	herb
3. *Panicum dichotomiflorum*	FACW-	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 67%

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Belknap silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/1
Other indicators: This soil is found in a depressional area.

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 2 (page 2 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by precipitation, sheet flow from any surrounding higher areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: sparsely vegetated level surface, crayfish burrows, and algal mat or crust

Wetland hydrology: Yes: X No:
Rationale: Well data collected by the ISGS substantiated that this entire site had greater than 5% wetland hydrology, 14 days straight of wetland hydrology, and 12.5% wetland hydrology. Thus, this entire site meets the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X No:
Rationale for decision: This site had dominant hydrophytic vegetation, hydric soils, and wetland hydrology. Thus, we determined that this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 2 (page 3 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Agrostis gigantea	red top	herb	FACW	0
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Ammannia coccinea	long-leaved ammannia	herb	OBL	5
Andropogon virginicus	**broom sedge**	**herb**	FAC-	1
Aster pilosus	hairy aster	herb	FACU-	0
Bidens aristosa	swamp marigold	herb	FACW	1
Campsis radicans	trumpet creeper	herb	FAC	2
Carex sp.	sedge	herb	------	--
Chamaesyce nutans	nodding spurge	herb	FACU-	0
Conyza canadensis	horseweed	herb	FAC-	0
Cyperus acuminatus	pointed flatsedge	herb	OBL	2
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Echinochloa muricata	**barnyard grass**	**herb**	OBL	0
Elaeagnus umbellata	autumn olive	herb	UPL	*
Eleocharis ovata obtusa	blunt spikerush	herb	OBL	2
Elymus virginicus	Virginia wild rye	herb	FACW-	4
Eupatorium serotinum	late boneset	herb	FAC+	1
Iva annua	marsh elder	herb	FAC	0
Liquidambar styraciflua	sweet gum	herb	FACW	6
Panicum dichotomiflorum	**fall panicum**	**herb**	FACW-	0
Panicum virgatum	switchgrass	herb	FAC+	4
Paspalum laeve	smooth bead grass	herb	UPL	2
Phragmites australis	common reed	herb	FACW+	*
Platanus occidentalis	sycamore	herb	FACW	3
Rumex crispus	curly dock	herb	FAC+	*
Scirpus atrovirens	bulrush	herb	OBL	4
Setaria glauca	yellow foxtail	herb	FAC	*
Sida spinosa	prickly sida	herb	FACU	*
Solidago canadensis	Canada goldenrod	herb	FACU	1

* Non-native species

mCv = 1.7
FQI = 7.9

ROUTINE ON-SITE WETLAND DETERMINATION
Site 2 (page 4 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

Determined by: Dennis J. Keene (soils and hydrology)
David Ketzner and Paul Marcum, (vegetation and hydrology)
Paul Marcum (GPS)
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ROUTINE ON-SITE WETLAND DETERMINATION
Site 3 (page 1 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. *Echinochloa muricata*	OBL	herb
2. *Phragmites australis*	FACW+	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 100%

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Belknap silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/1
Other indicators: This soil is found in a depressional area.

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 3 (page 2 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by precipitation, sheet flow from any surrounding higher areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: sparsely vegetated level surface, crayfish burrows, and algal mat or crust

Wetland hydrology: Yes: X No:
Rationale: Well data collected by the ISGS substantiated that this entire site had greater than 5% wetland hydrology, 14 days straight of wetland hydrology, and 12.5% wetland hydrology. Thus, this entire site meets the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X No:
Rationale for decision: This site had dominant hydrophytic vegetation, hydric soils, and wetland hydrology. Thus, we determined that this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 3 (page 3 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Ammannia coccinea	long-leaved ammannia	herb	OBL	5
Campsis radicans	trumpet creeper	woody vine, herb	FAC	2
Carex frankii	sedge	herb	OBL	4
Carex sp.	sedge	herb	------	--
Carex tribuloides	sedge	herb	FACW+	3
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Echinochloa muricata	**barnyard grass**	**herb**	OBL	0
Eclipta prostrata	yerba de tajo	herb	FACW	2
Eleocharis ovata obtusa	blunt spikerush	herb	OBL	2
Eupatorium serotinum	late boneset	herb	FAC+	1
Fraxinus lanceolata	green ash	herb	FACW	2
Iva annua	marsh elder	herb	FAC	0
Juncus brachycarpus	rush	herb	FACW	5
Juncus effusus solutus	common rush	herb	OBL	4
Juncus interior	inland rush	herb	FAC+	3
Ludwigia alternifolia	seedbox	herb	OBL	5
Mimulus alatus	winged monkey flower	herb	OBL	6
Panicum dichotomiflorum	fall panicum	herb	FACW-	0
Panicum virgatum	switchgrass	herb	FAC+	4
Persicaria pensylvanica	common smartweed	herb	FACW+	1
Phragmites australis	**common reed**	**herb**	FACW+	*
Populus deltoides	eastern cottonwood	shrub	FAC+	2
Salix nigra	black willow	shrub	OBL	3
Scirpus atrovirens	bulrush	herb	OBL	4
Setaria glauca	yellow foxtail	herb	FAC	*
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Ulmus americana	American elm	herb	FACW-	5

* Non-native species

mCv = 2.6
FQI = 12.9

ROUTINE ON-SITE WETLAND DETERMINATION
Site 3 (page 4 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

Determined by: Dennis J. Keene (soils and hydrology)
David Ketzner and Paul Marcum, (vegetation and hydrology)
Paul Marcum (GPS)
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(217) 244-0873 (Keene)

ROUTINE ON-SITE WETLAND DETERMINATION
Site 4 (page 1 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	**Indicator Status**	**Stratum**
1. *Echinochloa muricata*	OBL	herb
2. *Panicum dichotomiflorum*	FACW-	herb
3. *Phragmites australis*	FACW+	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 100%

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Belknap silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/1
Other indicators: This soil is found in a depressional area.

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 4 (page 2 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by precipitation, sheet flow from any surrounding higher areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: sparsely vegetated level surface, crayfish burrows, and algal mat or crust

Wetland hydrology: Yes: X No:
Rationale: Well data collected by the ISGS substantiated that this entire site had greater than 5% wetland hydrology, 14 days straight of wetland hydrology, and 12.5% wetland hydrology. Thus, this entire site meets the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X No:
Rationale for decision: This site had dominant hydrophytic vegetation, hydric soils, and wetland hydrology. Thus, we determined that this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 4 (page 3 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Acer rubrum	red maple	herb	FAC	5
Agalinis fasciculata	false foxglove	herb	FACW	6
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Ammannia coccinea	long-leaved ammannia	herb	OBL	5
Andropogon virginicus	broom sedge	herb	FAC-	1
Aster lanceolatus	panicled aster	herb	FACW	3
Campsis radicans	trumpet creeper	herb	FAC	2
Chamaesyce nutans	nodding spurge	herb	FACU-	0
Cyperus esculentus	yellow nut sedge	herb	FACW	0
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Dichanthelium acuminatum	panic grass	herb	FAC	2
Echinochloa muricata	**barnyard grass**	**herb**	OBL	0
Eleocharis ovata obtusa	blunt spikerush	herb	OBL	2
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Eupatorium serotinum	late boneset	herb	FAC+	1
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Fraxinus lanceolata	green ash	herb	FACW	2
Iva annua	marsh elder	herb	FAC	0
Juncus effusus solutus	common rush	herb	OBL	4
Juncus interior	inland rush	herb	FAC+	3
Ludwigia alternifolia	seedbox	herb	OBL	5
Ludwigia palustris americana	marsh purslane	herb	OBL	4
Panicum dichotomiflorum	**fall panicum**	**herb**	FACW-	0
Paspalum laeve	smooth bead grass	herb	UPL	2
Phragmites australis	**common reed**	**herb**	FACW+	*
Populus deltoides	eastern cottonwood	shrub	FAC+	2
♣*Quercus bicolor*	swamp white oak	shrub	FACW+	7
♣*Quercus palustris*	pin oak	shrub	FACW	4
Salix nigra	black willow	shrub	OBL	3
Scirpus atrovirens	bulrush	herb	OBL	4
Setaria glauca	yellow foxtail	herb	FAC	*

Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 4 (page 4 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet meadow
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: West part of the site: south of an old railroad line, and north of the drainage ditch that bisects the site

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Sida spinosa	prickly sida	herb	FACU	*
Solidago canadensis	Canada goldenrod	herb	FACU	1
Ulmus americana	American elm	herb	FACW-	5
Xanthium strumarium	cockle bur	herb	FAC	0

* Non-native species
♣Planted tree species

mCv = 2.4 (with planted tree species)
FQI = 13.9 (with planted tree species)
mCv = 2.2 (without planted tree species)
FQI = 12.4 (without planted tree species)

Determined by: Dennis J. Keene (soils and hydrology)
David Ketzner and Paul Marcum (vegetation and hydrology)
Paul Marcum (GPS)
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ROUTINE ON-SITE WETLAND DETERMINATION
Site 5 (page 1 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north/northeast of the drainage ditch and south/southeast of the old railroad embankment.

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. *Agrostis gigantea*	FACW	herb
2. *Ambrosia artemisiifolia*	FACU	herb
3. *Andropogon virginicus*	FAC-	herb
4. *Eupatorium serotinum*	FAC+	herb
5. *Solidago canadensis*	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 40%

Hydrophytic vegetation: Yes: No: X
Rationale: Only 40% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Belknap, Bonnie, and Creal silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/2, N 4/
Other indicators: This soil is found in a low area.

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 5 (page 2 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north/northeast of the drainage ditch and south/southeast of the old railroad embankment.

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by groundwater, precipitation, sheet flow from higher surrounding areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: some sparsely vegetated concave surface areas

Wetland hydrology: Yes: X (56%) No:
Rationale: Well data collected by the ISGS substantiated that approximately 56% of this site had greater than 5% and 12.5% wetland hydrology during the 2011 growing season. About 95% of the site had 14 days straight of wetland hydrology during the 2011 growing season. Thus, about 56% of this site meets the criteria for wetland hydrology in 2011 (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X (56%) No:
Rationale for decision: This site had hydric soils and about 56% of the site had wetland hydrology but this site lacks dominant hydrophytic vegetation. Thus, 56% this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 5 (page 3 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north/northeast of the drainage ditch and south/southeast of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Acer rubrum	red maple	herb	FAC	5
Agalinis fasciculata	false foxglove	herb	FACW	6
Agrostis gigantea	**red top**	**herb**	FACW	0
Ambrosia artemisiifolia	**common ragweed**	**herb**	FACU	0
Ambrosia trifida	giant ragweed	herb	FAC+	0
Andropogon virginicus	**broom sedge**	**herb**	FAC-	1
Apocynum cannabinum	dogbane	herb	FAC	2
Asclepias syriaca	common milkweed	herb	UPL	0
Aster pilosus	hairy aster	herb	FACU-	0
Aster racemosus	frost flower	herb	FACW-	3
Barbarea vulgaris	winter cress	herb	FAC	*
Bidens aristosa	swamp marigold	herb	FACW	1
Calystegia sepium	bindweed	herb	FAC	1
Campsis radicans	trumpet creeper	shrub, herb	FAC	2
♣*Carya illinoensis*	pecan	shrub	FACW	6
Chamaesyce nutans	nodding spurge	herb	FACU-	0
Cirsium discolor	field thistle	herb	UPL	3
Conyza canadensis	horseweed	herb	FAC-	0
Cynanchum laeve	blue vine	herb	FAC	1
Desmodium canescens	hoary tick trefoil	herb	UPL	4
Dichanthelium acuminatum	panic grass	herb	FAC	2
Erechtites hieracifolia	fireweed	herb	FACU	2
Eupatorium serotinum	**late boneset**	**herb**	FAC+	1
Festuca arundinacea	tall fescue	herb	FACU+	*
Iva annua	marsh elder	herb	FAC	0
Lespedeza cuneata	sericea lespedeza	herb	NI	*
Ludwigia alternifolia	seedbox	herb	OBL	5
Melilotus sp.	sweet clover	herb	FACU	*
Panicum virgatum	switchgrass	herb	FAC+	4
Paspalum laeve	smooth bead grass	herb	UPL	2
Phragmites australis	common reed	herb	FACW+	*

* Non-native species
♣Planted tree species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 5 (page 4 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north/northeast of the drainage ditch and south/southeast of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Pseudognaphalium obtusifolium	cudweed	herb	UPL	2
Pyrrhopappus carolinianus	false dandelion	herb	UPL	1
♣*Quercus bicolor*	swamp white oak	shrub	FACW+	7
♣*Quercus palustris*	pin oak	shrub	FACW	4
Rubus pensilvanicus	blackberry	shrub	FAC-	2
Sabatia angularis	marsh pink	herb	FAC+	3
Setaria faberi	giant foxtail	herb	FACU+	*
Setaria glauca	yellow foxtail	herb	FAC	*
Solanum carolinense	horse-nettle	herb	FACU-	0
Solidago canadensis	**Canada goldenrod**	**herb**	FACU	1
Solidago nemoralis	field goldenrod	herb	UPL	3
Sorghum halepense	Johnson grass	herb	FACU	*
Toxicodendron radicans	poison ivy	herb	FAC+	1
Trifolium pratense	red clover	herb	FACU+	*

* Non-native species
♣Planted tree species

mCv = 2.0 (with planted tree species)
FQI = 12.3 (with planted tree species)
mCv = 1.7 (without planted tree species)
FQI = 9.9 (without planted tree species)

Determined by: Dennis J. Keene (soils and hydrology)
David Ketzner and Paul Marcum (vegetation and hydrology)
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Wetland Science Program
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ROUTINE ON-SITE WETLAND DETERMINATION
Site 6 (page 1 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north of IL Route 13 and east of the old railroad embankment.

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	Indicator Status	Stratum
1. *Agrostis gigantea*	FACW	herb
2. *Bidens aristosa*	FACW	herb
3. *Eupatorium serotinum*	FAC+	herb
4. *Solidago canadensis*	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 75%

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Creal and Banlic silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/2, N 4/
Other indicators: This soil is found in a low area.

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 6 (page 2 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north of IL Route 13 and east of the old railroad embankment.

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by groundwater, precipitation, sheet flow from higher surrounding areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: some sparsely vegetated concave surface areas

Wetland hydrology: Yes: X (79%) No:
Rationale: Well data collected by the ISGS substantiated that 79% of this site had greater than 5% and 12.5% wetland hydrology while the entire site had 14 days straight of wetland hydrology during the 2011 growing season. Thus, 79% of this site satisfies the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X (79%) No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and 79% of the site at 12.5% wetland hydrology, we determined that 79% of this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 6 (page 3 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north of IL Route 13 and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Acer rubrum	red maple	herb	FAC	5
Agalinis fasciculata	false foxglove	herb	FACW	6
Agrostis gigantea	**red top**	**herb**	FACW	0
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Ammannia coccinea	long-leaved ammannia	herb	OBL	5
Andropogon virginicus	broom sedge	herb	FAC-	1
Aster lanceolatus	panicled aster	herb	FACW	3
Bidens aristosa	**swamp marigold**	**herb**	FACW	1
Campsis radicans	trumpet creeper	shrub, herb	FAC	2
Carex frankii	sedge	herb	OBL	4
Carex granularis	meadow sedge	herb	FACW+	2
Carex sp.	sedge	herb	------	--
Carex tribuloides	sedge	herb	FACW+	3
♣*Carya illinoensis*	pecan	shrub	FACW	6
Conyza canadensis	horseweed	herb	FAC-	0
Cyperus acuminatus	pointed flatsedge	herb	OBL	2
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Desmodium sp.	tick trefoil	herb	------	--
Dichanthelium acuminatum	panic grass	herb	FAC	2
Dichanthelium clandestinum	broad-leaved panic grass	herb	FACW	4
Diodia virginiana	large buttonweed	herb	FACW	4
Diospyros virginiana	persimmon	herb	FAC	2
Echinochloa muricata	barnyard grass	herb	OBL	0
Eleocharis ovata obtusa	blunt spikerush	herb	OBL	2
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Eupatorium serotinum	**late boneset**	**herb**	FAC+	1
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Fraxinus lanceolata	green ash	herb	FACW	2
Hypericum sp.	St. John's-wort	herb	------	--
Ipomoea lacunosa	white morning-glory	herb	FACW	1

* Non-native species
♣Planted tree species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 6 (page 4 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north of IL Route 13 and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Iva annua	marsh elder	herb	FAC	0
Juncus acuminatus	knotty-leaved rush	herb	OBL	4
Juncus brachycarpus	rush	herb	FACW	5
Juncus effusus solutus	common rush	herb	OBL	4
Juncus interior	inland rush	herb	FAC+	3
Juniperus virginiana	eastern red cedar	herb	FACU	1
Leersia oryzoides	rice cutgrass	herb	OBL	3
Lespedeza cuneata	sericea lespedeza	herb	NI	*
Ludwigia alternifolia	seedbox	herb	OBL	5
Ludwigia palustris americana	marsh purslane	herb	OBL	4
Ludwigia polycarpa	false loosestrife	herb	OBL	5
Mimulus alatus	winged monkey flower	herb	OBL	6
Oenothera biennis	evening primrose	herb	FACU	1
Panicum virgatum	switchgrass	herb	FAC+	4
Paspalum laeve	smooth bead grass	herb	UPL	2
Persicaria pensylvanica	common smartweed	herb	FACW+	1
Persicaria punctata	dotted smartweed	herb	OBL	3
Phragmites australis	common reed	herb	FACW+	*
Populus deltoides	eastern cottonwood	shrub	FAC+	2
Prunella vulgaris elongata	self-heal	herb	FAC	1
Pseudognaphalium obtusifolium	cudweed	herb	UPL	2
Pyrus calleryana	Bradford pear	herb	UPL	*
♣*Quercus alba*	white oak	shrub	FACU	5
♣*Quercus bicolor*	swamp white oak	shrub	FACW+	7
♣*Quercus michauxii*	basket oak	shrub	FACW	7
♣*Quercus palustris*	pin oak	shrub	FACW	4
Rubus discolor	Himalaya-berry	shrub	UPL	*
Rubus pensilvanicus	blackberry	shrub	FAC-	2
Salix nigra	black willow	shrub	OBL	3

* Non-native species
♣Planted tree species

Species list continued on the next page

ROUTINE ON-SITE WETLAND DETERMINATION
Site 6 (page 5 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area occurs north of IL Route 13 and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Scirpus atrovirens	bulrush	herb	OBL	4
Setaria glauca	yellow foxtail	herb	FAC	*
Sida spinosa	prickly sida	herb	FACU	*
Solanum carolinense	horse-nettle	herb	FACU-	0
Solidago canadensis	**Canada goldenrod**	**herb**	FACU	1
Sorghastrum nutans	Indian grass	herb	FACU+	4
Trifolium repens	white clover	herb	FACU+	*
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Typha latifolia	cattail	herb	OBL	1

* Non-native species
♣Planted tree species

mCv = 2.7 (with planted tree species)
FQI = 20.9 (with planted tree species)
mCv = 2.5 (without planted tree species)
FQI = 17.9 (without planted tree species)

Determined by: Dennis J. Keene (soils and hydrology)
David Ketzner and Paul Marcum (vegetation and hydrology)
David Ketzner (GPS)
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ROUTINE ON-SITE WETLAND DETERMINATION
Site 7 (page 1 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet prairie planting
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: Central part of site, north of IL 13 and just south of the drainageway that bisects the site.

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	**Indicator Status**	**Stratum**
Panicum virgatum	FAC+	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 100%

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Belknap and Bonnie silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: Undet: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/2, N 4/
Other indicators: This soil is found in a low area.

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 7 (page 2 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet prairie planting
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: Central part of site, north of IL 13 and just south of the drainageway that bisects the site.

HYDROLOGY

Inundated: Yes: X No: Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by precipitation, sheet flow from any surrounding higher areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, sheet flow to lower areas, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: none

Wetland hydrology: Yes: X (74%) No:
Rationale: Well data collected by the ISGS substantiated that 74% of this site had greater than 5% and 12.5% wetland hydrology during the growing season and 14 days straight of wetland hydrology during the growing season this year (2011). Thus, 74% of this site meets the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X (74%) No:
Rationale for decision: Based on the presence of dominant hydrophytic vegetation, hydric soils, and 74% of site with 12.5% wetland hydrology, we determined that 74% of this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 7 (page 3 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet prairie
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: Central part of site, north of IL 13 and just south of the drainageway that bisects the site.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Ambrosia trifida	giant ragweed	herb	FAC+	0
Ampelopsis cordata	raccoon grape	woody vine	FAC+	2
Andropogon gerardii	big bluestem	herb	FAC-	5
Andropogon virginicus	broom sedge	herb	FAC-	1
Asclepias syriaca	common milkweed	herb	UPL	0
Aster pilosus	hairy aster	herb	FACU-	0
Campsis radicans	trumpet creeper	shrub	FAC	2
♣*Carya illinoensis*	pecan	shrub	FACW	6
Conoclinium coelestinum	mistflower	herb	FAC+	3
Conyza canadensis	horseweed	herb	FAC-	0
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Dichanthelium acuminatum	panic grass	herb	FAC	2
Dichanthelium scoparium	panic grass	herb	FACW	6
Diodia teres	rough buttonweed	herb	FACU	2
Diospyros virginiana	persimmon	shrub	FAC	2
Echinochloa muricata	barnyard grass	herb	OBL	0
Elaeagnus umbellata	autumn olive	shrub	UPL	*
Eleocharis ovata obtusa	blunt spikerush	herb	OBL	2
Erechtites hieracifolia	fireweed	herb	FACU	2
Erigeron annuus	annual fleabane	herb	FAC-	1
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Fraxinus lanceolata	green ash	shrub	FACW	2
Iva annua	marsh elder	herb	FAC	0
Juncus biflorus	two-flowered rush	herb	FACW	5
Juncus interior	inland rush	herb	FAC+	3
Juniperus virginiana	eastern red cedar	shrub	FACU	1
Lespedeza cuneata	sericea lespedeza	herb	NI	*
Ludwigia alternifolia	seedbox	herb	OBL	5
Panicum virgatum	**switchgrass**	**herb**	FAC+	4

* Non-native species
♣Planted tree species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 7 (page 4 of 4)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Wet prairie
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: Central part of site, north of IL 13 and just south of the drainageway that bisects the site.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Paspalum laeve	smooth bead grass	herb	UPL	2
Phragmites australis	common reed	herb	FACW+	*
Populus deltoides	eastern cottonwood	sapling, shrub	FAC+	2
Pseudognaphalium obtusifolium	cudweed	herb	UPL	2
♣*Quercus bicolor*	swamp white oak	shrub	FACW+	7
♣*Quercus palustris*	pin oak	shrub	FACW	4
Rubus discolor	Himalaya-berry	shrub	UPL	*
Rubus pensilvanicus	blackberry	shrub	FAC-	2
Salix nigra	black willow	shrub	OBL	3
Scirpus atrovirens	bulrush	herb	OBL	4
Setaria faberi	giant foxtail	herb	FACU+	*
Setaria glauca	yellow foxtail	herb	FAC	*
Solanum carolinense	horse-nettle	herb	FACU-	0
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago nemoralis	field goldenrod	herb	UPL	3
Toxicodendron radicans	poison ivy	herb	FAC+	1
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Ulmus americana	American elm	herb	FACW-	5

* Non-native species
♣Planted tree species

mCv = 2.3 (with planted tree species)
FQI = 15.0 (with planted tree species)
mCv = 2.1 (without planted tree species)
FQI = 12.8 (without planted tree species)

Determined by: Dennis J. Keene (soils and hydrology)
David Ketzner and Paul Marcum (vegetation and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION
Site 8 (page 1 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13 and north and south of the drainageway that bisects the site.

Do normal environmental conditions exist at this site? Yes: X No:
Has the vegetation, soil, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	**Indicator Status**	**Stratum**
1. *Andropogon virginicus*	FAC-	herb
2. *Festuca arundinacea*	FACU+	herb
3. *Solidago canadensis*	FACU	herb

Percent of dominant species that are OBL, FACW or FAC: 0 %

Hydrophytic vegetation: Yes: No: X
Rationale: There were no dominants that were OBL, FACW or FAC.

SOILS

Series and phase: NRCS mapped Belknap, Bonnie, and Banlic silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/2, N 4/
Other indicators: This soil is found in a low area.

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 8 (page 2 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13 and north and south of the drainageway that bisects the site.

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by groundwater, precipitation, sheet flow from higher surrounding areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: none

Wetland hydrology: Yes: X (70%) No:
Rationale: Well data collected by the ISGS substantiated that 70% of this site had greater than 5% and 12.5% wetland hydrology during the growing season, and 14 days straight of wetland hydrology during the growing season this year (2011). Thus, 70% of this site meets the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X (70%) No:
Rationale for decision: This site had hydric soils and about 70% of the site had wetland hydrology but this site lacks dominant hydrophytic vegetation. Thus, 70% this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 8 (page 3 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13 and north and south of the drainageway that bisects the site.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Acer rubrum	red maple	herb	FAC	5
Agrostis gigantea	red top	herb	FACW	0
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Ambrosia trifida	giant ragweed	herb	FAC+	0
Ampelopsis cordata	raccoon grape	herb	FAC+	2
Andropogon virginicus	**broom sedge**	**herb**	FAC-	1
Asclepias syriaca	common milkweed	herb	UPL	0
Aster novae-angliae	New England aster	herb	FACW	4
Aster pilosus	hairy aster	herb	FACU-	0
Bidens aristosa	swamp marigold	herb	FACW	1
Campsis radicans	trumpet creeper	woody vine, herb	FAC	2
Catalpa speciosa	catalpa	herb	FACU	0
Celtis occidentalis	hackberry	shrub	FAC-	3
Cephalanthus occidentalis	buttonbush	herb	OBL	4
Chamaesyce nutans	nodding spurge	herb	FACU-	0
Cirsium discolor	field thistle	herb	UPL	3
Conoclinium coelestinum	mistflower	herb	FAC+	3
Conyza canadensis	horseweed	herb	FAC-	0
Cornus drummondii	rough-leaved dogwood	herb	FAC	2
Cynanchum laeve	blue vine	herb	FAC	1
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Dactylis glomerata	orchard grass	herb	FACU	*
Daucus carota	Queen-Anne's-lace	herb	UPL	*
Dichanthelium clandestinum	broad-leaved panic grass	herb	FACW	4
Diospyros virginiana	persimmon	shrub	FAC	2
Echinochloa muricata	barnyard grass	herb	OBL	0
Elaeagnus umbellata	autumn olive	shrub	UPL	*
Eryngium yuccifolium	rattlesnake master	herb	FAC+	7
Eupatorium perfoliatum	common boneset	herb	FACW+	4

* Non-native species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 8 (page 4 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13 and north and south of the drainageway that bisects the site.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Eupatorium serotinum	late boneset	herb	FAC+	1
Festuca arundinacea	**tall fescue**	**herb**	FACU+	*
Fraxinus lanceolata	green ash	herb	FACW	2
Hibiscus lasiocarpos	hairy rose mallow	herb	FACW+	5
Ipomoea lacunosa	white morning-glory	herb	FACW	1
Iva annua	marsh elder	herb	FAC	0
Juncus interior	inland rush	herb	FAC+	3
Juniperus virginiana	eastern red cedar	herb	FACU	1
Lespedeza cuneata	sericea lespedeza	herb	NI	*
Lonicera maackii	Amur honeysuckle	herb	UPL	*
Melilotus sp.	sweet clover	herb	FACU	*
Morus alba	white mulberry	herb	FAC	*
Panicum virgatum	switchgrass	herb	FAC+	4
Paspalum floridanum	giant beadgrass	herb	FACW	7
Paspalum laeve	smooth bead grass	herb	UPL	2
Penstemon sp.	beardstongue	herb	------	--
Phyla lanceolata	fog-fruit	herb	OBL	1
Pluchea camphorata	camphor weed	herb	FACW	7
Populus deltoides	eastern cottonwood	shrub	FAC+	2
Prunella vulgaris elongata	self-heal	herb	FAC	1
Pseudognaphalium obtusifolium	cudweed	herb	UPL	2
Pyrus calleryana	Bradford pear	shrub	UPL	*
Quercus palustris	pin oak	shrub	FACW	4
Ratibida pinnata	yellow coneflower	herb	UPL	4
Rudbeckia hirta	black-eyed Susan	herb	FACU	2
Rumex crispus	curly dock	herb	FAC+	*
Salix nigra	black willow	shrub	OBL	3
Setaria glauca	yellow foxtail	herb	FAC	*
Silphium perfoliatum	cup plant	herb	FACW-	4
Solidago canadensis	**Canada goldenrod**	**herb**	FACU	1

* Non-native species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 8 (page 5 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Non-native grassland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13 and north and south of the drainageway that bisects the site.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Solidago rigida	rigid goldenrod	herb	FACU-	4
Sorghastrum nutans	Indian grass	herb	FACU+	4
Sorghum halepense	Johnson grass	herb	FACU	*
Toxicodendron radicans	poison ivy	herb	FAC+	1
Tridens flavus	purple-top	herb	UPL	1
Typha angustifolia	narrow-leaved cattail	herb	OBL	*
Verbena urticifolia	white vervain	herb	FAC+	3
Vernonia gigantea	tall ironweed	herb	FAC	4
Vitis aestivalis	summer grape	herb	FACU	4
Xanthium strumarium	cockle bur	herb	FAC	0

* Non-native species

mCv = 2.3
FQI = 16.8

Determined by: Dennis J. Keene (soils and hydrology)
David Ketzner and Paul Marcum (vegetation and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION
Site 9 (page 1 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Marsh
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13.

Do normal environmental conditions exist at this site? Yes: X No:
Has the vegetation, soil, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	**Indicator Status**	**Stratum**
1. *Phragmites australis*	FACW+	herb
2. *Typha angustifolia*	OBL	herb

Percent of dominant species that are OBL, FACW or FAC: 100 %

Hydrophytic vegetation: Yes: X No:
Rationale: More than 50% of the dominants were OBL, FACW or FAC.

SOILS

Series and phase: NRCS mapped Banlic silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/1 and 10YR 4/1
Other indicators: This soil is found in a low area.

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 9 (page 2 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Marsh
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13.

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by groundwater, precipitation, sheet flow from higher surrounding areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: Water marks, drift deposits, crayfish burrows

Wetland hydrology: Yes: X No:
Rationale: Well data collected by the ISGS substantiated that this entire site had greater than 5% wetland hydrology, 14 days straight of wetland hydrology, and 12.5% wetland hydrology. Thus, this entire site meets the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X No:
Rationale for decision: This site has dominant hydrophytic vegetation, hydric soils, and wetland hydrology. Thus, we determined that this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 9 (page 3 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Marsh
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Acer rubrum	red maple	shrub	FAC	5
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Ambrosia trifida	giant ragweed	herb	FAC+	0
Ammannia coccinea	long-leaved ammannia	herb	OBL	5
Ampelopsis cordata	raccoon grape	woody vine	FAC+	2
Andropogon virginicus	broom sedge	herb	FAC-	1
Apocynum cannabinum	dogbane	herb	FAC	2
Asclepias incarnata	swamp milkweed	herb	OBL	4
Aster lanceolatus	panicled aster	herb	FACW	3
Aster racemosus	frost flower	herb	FACW-	3
Bidens aristosa	swamp marigold	herb	FACW	1
Boehmeria cylindrica	false nettle	herb	OBL	3
Calystegia sepium	bindweed	herb	FAC	1
Carex brachyglossa	sedge	herb	FACW	3
Carex tribuloides	sedge	herb	FACW+	3
Cicuta maculata	water hemlock	herb	OBL	4
Conoclinium coelestinum	mistflower	herb	FAC+	3
Cyperus erythrorhizos	red-rooted sedge	herb	OBL	1
Cyperus esculentus	yellow nut sedge	herb	FACW	0
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Diodia virginiana	large buttonweed	herb	FACW	4
Echinochloa muricata	barnyard grass	herb	OBL	0
Eclipta prostrata	yerba de tajo	herb	FACW	2
Eleocharis ovata obtusa	blunt spikerush	herb	OBL	2
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Eupatorium serotinum	late boneset	herb	FAC+	1
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Fraxinus lanceolata	green ash	shrub	FACW	2
Gleditsia triacanthos	honey locust	shrub	FAC	2
Hibiscus lasiocarpos	hairy rose mallow	herb	FACW+	5
Ipomoea lacunosa	white morning-glory	herb	FACW	1

* Non-native species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 9 (page 4 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Marsh
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Iva annua	marsh elder	herb	FAC	0
Juncus acuminatus	knotty-leaved rush	herb	OBL	4
Juncus biflorus	two-flowered rush	herb	FACW	5
Juncus brachycarpus	rush	herb	FACW	5
Leersia oryzoides	rice cutgrass	herb	OBL	3
Liquidambar styraciflua	sweet gum	herb	FACW	6
Ludwigia alternifolia	seedbox	herb	OBL	5
Ludwigia palustris americana	marsh purslane	herb	OBL	4
Ludwigia polycarpa	false loosestrife	herb	OBL	5
Lycopus americanus	common water horehound	herb	OBL	3
Mimulus alatus	winged monkey flower	herb	OBL	6
Panicum dichotomiflorum	fall panicum	herb	FACW-	0
Paspalum floridanum	giant beadgrass	herb	FACW	7
Paspalum laeve	smooth bead grass	herb	UPL	2
Penthorum sedoides	ditch stonecrop	herb	OBL	2
Persicaria lapathifolia	curttop lady's thumb	herb	FACW+	0
Persicaria pensylvanica	common smartweed	herb	FACW+	1
Persicaria punctata	dotted smartweed	herb	OBL	3
Phragmites australis	**common reed**	**herb**	FACW+	*
Phyla lanceolata	fog-fruit	herb	OBL	1
Pluchea camphorata	camphor weed	herb	FACW	7
Populus deltoides	eastern cottonwood	herb	FAC+	2
Pyrus calleryana	Bradford pear	shrub	UPL	*
Ranunculus sceleratus	cursed crowfoot	herb	OBL	3
Rumex crispus	curly dock	herb	FAC+	*
Sagittaria calycina	arrowleaf	herb	OBL	6
Salix nigra	black willow	shrub	OBL	3
Schoenoplectus mucronatus	mucronate bulrush	herb	OBL	*
Scirpus atrovirens	bulrush	herb	OBL	4
Setaria glauca	yellow foxtail	herb	FAC	*
Toxicodendron radicans	poison ivy	herb	FAC+	1
Typha angustifolia	**narrow-leaved cattail**	**herb**	OBL	*
Ulmus americana	American elm	herb	FACW-	5
Vernonia gigantea	tall ironweed	herb	FAC	4
Xanthium strumarium	cockle bur	herb	FAC	0

* Non-native species

mCv = 2.7
FQI = 21.4

ROUTINE ON-SITE WETLAND DETERMINATION
Site 9 (page 5 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Marsh
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the east part of the site, just north of IL 13.

Determined by: Dennis J. Keene (soils and hydrology)
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Paul Marcum (GPS)
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(217) 244-0873 (Keene)

ROUTINE ON-SITE WETLAND DETERMINATION
Site 10 (page 1 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the north part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	**Indicator Status**	**Stratum**
1. *Andropogon virginicus*	FAC-	herb
2. *Bidens aristosa*	FACW	herb
3. *Solidago canadensis*	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 33%

Hydrophytic vegetation: Yes: No: X
Rationale: Less than 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Creal silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/1 and 4/2
Other indicators: none

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 10 (page 2 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the north part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by precipitation, sheet flow from any surrounding higher areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, sheet flow to lower areas, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: algal mat or crust

Wetland hydrology: Yes: X (70%) No:
Rationale: Well data collected by the ISGS substantiated that about 70% of this site had greater than 5% and 12.5% of wetland hydrology during the growing season this year (2011). About 90% of this site had 14 days straight of wetland hydrology during the growing season this year (2011). Thus, most of this site (70%) meets the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X (70%) No:
Rationale for decision: Although this site lacks dominant hydrophytic vegetation, this site had hydric soils and 70% of the site had 12.5% wetland hydrology. Thus, 70% of this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 10 (page 3 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the north part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Acer rubrum	red maple	herb	FAC	5
Agalinis fasciculata	false foxglove	herb	FACW	6
Agrostis gigantea	red top	herb	FACW	0
Ambrosia artemisiifolia	common ragweed	herb	FACU	0
Ambrosia trifida	giant ragweed	herb	FAC+	0
Ampelopsis cordata	raccoon grape	woody vine	FAC+	2
Andropogon virginicus	**broom sedge**	**herb**	FAC-	1
Antennaria neglecta	cat's foot	herb	UPL	4
Aster pilosus	hairy aster	herb	FACU-	0
Aster racemosus	frost flower	herb	FACW-	3
Bidens aristosa	**swamp marigold**	**herb**	FACW	1
Campsis radicans	trumpet creeper	woody vine, herb	FAC	2
♣*Carya illinoensis*	pecan	shrub	FACW	6
Cirsium discolor	field thistle	herb	UPL	3
Desmodium sp.	tick trefoil	herb	------	--
Dichanthelium acuminatum	panic grass	herb	FAC	2
Dichanthelium clandestinum	broad-leaved panic grass	herb	FACW	4
Diodia virginiana	large buttonweed	herb	FACW	4
Diospyros virginiana	persimmon	shrub	FAC	2
Elaeagnus umbellata	autumn olive	herb	UPL	*
Erigeron annuus	annual fleabane	herb	FAC-	1
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Eupatorium serotinum	late boneset	herb	FAC+	1
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Fraxinus americana	white ash	shrub	FACU	4
Fraxinus lanceolata	green ash	shrub	FACW	2
Iva annua	marsh elder	herb	FAC	0
Juglans nigra	black walnut	shrub	FACU	4

* Non-native species
♣Planted tree species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 10 (page 4 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the north part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Juniperus virginiana	eastern red cedar	herb	FACU	1
Kummerowia striata	Japanese lespedeza	herb	FACU	*
Lactuca canadensis	Canada lettuce	herb	FACU+	1
Lonicera japonica	Japanese honeysuckle	herb	FACU	*
Ludwigia alternifolia	seedbox	herb	OBL	5
Oenothera biennis	evening primrose	herb	FACU	1
Panicum virgatum	switchgrass	herb	FAC+	4
Paspalum laeve	smooth bead grass	herb	UPL	2
Passiflora incarnata	large passion-flower	herb	FACU	3
Phragmites australis	common reed	herb	FACW+	*
Potentilla simplex	common cinquefoil	herb	FACU-	3
Pseudognaphalium obtusifolium	cudweed	herb	UPL	2
♣*Quercus bicolor*	swamp white oak	shrub	FACW+	7
♣*Quercus palustris*	pin oak	shrub	FACW	4
Rhus copallina	winged sumac	shrub	UPL	3
Rubus pensilvanicus	blackberry	herb	FAC-	2
Setaria glauca	yellow foxtail	herb	FAC	*
Solidago canadensis	**Canada goldenrod**	**herb**	FACU	1
Solidago nemoralis	field goldenrod	herb	UPL	3
Sorghum halepense	Johnson grass	herb	FACU	*
Strophostyles leiosperma	wild bean	herb	UPL	4
Symphoricarpos orbiculatus	coralberry	herb	FACU	1
Tridens flavus	purple-top	herb	UPL	1
Vernonia gigantea	tall ironweed	herb	FAC	4

* Non-native species
♣Planted tree species

mCv = 2.5 (with planted tree species)
FQI = 17.1 (with planted tree species)
mCv = 2.3 (without planted tree species)
FQI = 15.1 (without planted tree species)

ROUTINE ON-SITE WETLAND DETERMINATION
Site 10 (page 5 of 5)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the north part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

Determined by: Dennis J. Keene (soils and hydrology)
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ROUTINE ON-SITE WETLAND DETERMINATION
Site 11 (page 1 of 6)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the northeast part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

Do normal environmental conditions exist at this site? Yes: X No:
Have the vegetation, soils, or hydrology been significantly disturbed? Yes: No: X

VEGETATION

Dominant Plant Species	**Indicator Status**	**Stratum**
1. *Agrostis gigantea*	FACW	herb
2. *Ambrosia artemisiifolia*	FACU	herb

Percentage of dominant species that are OBL, FACW, FAC+, or FAC: 50%

Hydrophytic vegetation: Yes: No: X
Rationale: Only 50% of the dominants are OBL, FACW, FAC+, or FAC.

SOILS

Series and phase: NRCS mapped Banlic silt loam, classified as Undetermined (scraped soil)
On Saline County hydric soils list? Yes: No: X
Is the soil a histosol? Yes: No: X
Histic epipedon present? Yes: No: X
Redox concentrations: Yes: X No:
Redox depletions: Yes: No: X
Matrix color: 10YR 5/1 and 10YR 4/2
Other indicators: none

Hydric soils: Yes: X No:
Rationale: This soil has a depleted matrix and iron masses. This soil meets the NRCS hydric soil indicator F3 (depleted matrix).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 11 (page 2 of 6)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the northeast part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

HYDROLOGY

Inundated: Yes: No: X Depth of standing water: NA
Depth to saturated soil: > 1 m (40 in)
Overview of hydrological flow through the system: This site is hydrologically influenced by precipitation, sheet flow from any surrounding higher areas, and drainageway overflow. Water leaves the site via evapotranspiration, sheet flow to the drainageway, sheet flow to lower areas, and groundwater recharge.
Size of watershed: Less than 2.59 km^2 (1 mi^2)
Other field evidence observed: crayfish burrows

Wetland hydrology: Yes: X (11%) No:
Rationale: Well data collected by the ISGS substantiated that 11% of this site had greater than 5% and 12.5% of wetland hydrology during the growing season this year (2011). A small area of the site also had 14 days straight of wetland hydrology during the growing season this year (2011). Thus, 11% of this site meets the criteria for wetland hydrology (Miner *et al*. 2011).

DETERMINATION AND RATIONALE:

Is the site a wetland? Yes: X (11%) No:
Rationale for decision: This site had hydric soils and about 11% of the site had wetland hydrology but this site lacks dominant hydrophytic vegetation. Thus, 11% this site is a wetland. The NWI coded this site as U (Upland).

ROUTINE ON-SITE WETLAND DETERMINATION
Site 11 (page 3 of 6)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the northeast part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Acalypha rhomboidea	three-seeded mercury	herb	FACU	0
Acer negundo	box elder	herb	FACW-	1
Acer rubrum	red maple	shrub, herb	FAC	5
Agalinis fasciculata	false foxglove	herb	FACW	6
Agrostis gigantea	**red top**	**herb**	FACW	0
Ambrosia artemisiifolia	**common ragweed**	**herb**	FACU	0
Ampelopsis cordata	raccoon grape	woody vine	FAC+	2
Andropogon virginicus	broom sedge	herb	FAC-	1
Apocynum cannabinum	dogbane	herb	FAC	2
Aristida oligantha	three awn grass	herb	UPL	0
Aster novae-angliae	New England aster	herb	FACW	4
Aster pilosus	hairy aster	herb	FACU-	0
Barbarea vulgaris	winter cress	herb	FAC	*
Bidens aristosa	swamp marigold	herb	FACW	1
Boltonia asteroides	false aster	herb	FACW	5
Campsis radicans	trumpet creeper	woody vine, shrub	FAC	2
Carex sp.	sedge	herb	------	--
♣*Carya illinoensis*	pecan	shrub	FACW	6
Celtis occidentalis	hackberry	sapling	FAC-	3
Chamaesyce maculata	milk spurge	herb	UPL	0
Chamaesyce nutans	nodding spurge	herb	FACU-	0
Cirsium discolor	field thistle	herb	UPL	3
Conoclinium coelestinum	mistflower	herb	FAC+	3
Conyza canadensis	horseweed	herb	FAC-	0
Cornus obliqua	pale dogwood	shrub	FACW+	4
Cyperus strigosus	straw-colored flatsedge	herb	FACW	0
Desmanthus illinoensis	Illinois bundleflower	herb	FAC-	4
Dichanthelium acuminatum	panic grass	herb	FAC	2
Dichanthelium clandestinum	broad-leaved panic grass	herb	FACW	4
Diospyros virginiana	persimmon	shrub	FAC	2

* Non-native species
♣Planted tree species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 11 (page 4 of 6)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the northeast part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Echinochloa muricata	barnyard grass	herb	OBL	0
Elaeagnus umbellata	autumn olive	shrub	UPL	*
Elymus canadensis	Canada wild rye	herb	FAC-	4
Elymus virginicus	Virginia wild rye	herb	FACW-	4
Erechtites hieracifolia	fireweed	herb	FACU	2
Eryngium yuccifolium	rattlesnake master	herb	FAC+	7
Eupatorium perfoliatum	common boneset	herb	FACW+	4
Eupatorium serotinum	late boneset	herb	FAC+	1
Euthamia graminifolia	grassleaf goldenrod	herb	FACW-	3
Festuca arundinacea	tall fescue	herb	FACU+	*
Fraxinus americana	white ash	shrub	FACU	4
Fraxinus lanceolata	green ash	herb	FACW	2
Helianthus tuberosus	Jerusalem artichoke	herb	FAC	3
Heliopsis helianthoides	false sunflower	herb	UPL	4
Ipomoea lacunosa	white morning-glory	herb	FACW	1
Iva annua	marsh elder	herb	FAC	0
Juniperus virginiana	eastern red cedar	herb	FACU	1
Lactuca canadensis	Canada lettuce	herb	FACU+	1
Liquidambar styraciflua	sweet gum	shrub	FACW	6
Lonicera japonica	Japanese honeysuckle	herb	FACU	*
Ludwigia alternifolia	seedbox	herb	OBL	5
Lycopus americanus	common water horehound	herb	OBL	3
Monarda fistulosa	wild bergamot	herb	FACU	4
Morus alba	white mulberry	shrub	FAC	*
Oenothera biennis	evening primrose	herb	FACU	1
Oxalis stricta	yellow wood sorrel	herb	FACU	0
Panicum dichotomiflorum	fall panicum	herb	FACW-	0
Panicum virgatum	switchgrass	herb	FAC+	4
Parthenocissus quinquefolia	Virginia creeper	woody vine	FAC-	2
Paspalum floridanum	giant beadgrass	herb	FACW	7
Paspalum laeve	smooth bead grass	herb	UPL	2

* Non-native species
♣Planted tree species
Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 11 (page 5 of 6)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the northeast part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Passiflora incarnata	large passion-flower	herb	FACU	3
Persicaria cespitosa	creeping smartweed	herb	UPL	*
Persicaria pensylvanica	common smartweed	herb	FACW+	1
Phragmites australis	common reed	herb	FACW+	*
Phyla lanceolata	fog-fruit	herb	OBL	1
Prunus serotina	wild black cherry	sapling	FACU	1
Pseudognaphalium obtusifolium	cudweed	herb	UPL	2
Pyrus calleryana	Bradford pear	shrub	UPL	*
♣*Quercus alba*	white oak	shrub	FACU	5
♣*Quercus bicolor*	swamp white oak	shrub	FACW+	7
♣*Quercus palustris*	pin oak	shrub	FACW	4
Ratibida pinnata	yellow coneflower	herb	UPL	4
Rhus copallina	winged sumac	shrub	UPL	3
Rosa multiflora	multiflora rose	shrub	FACU	*
Rosa setigera	Illinois rose	shrub	FACU+	5
Rubus discolor	Himalaya-berry	shrub	UPL	*
Rubus pensilvanicus	blackberry	herb	FAC-	2
Rumex crispus	curly dock	herb	FAC+	*
Salix nigra	black willow	sapling/shrub	OBL	3
Scirpus atrovirens	bulrush	herb	OBL	4
Setaria faberi	giant foxtail	herb	FACU+	*
Setaria glauca	yellow foxtail	herb	FAC	*
Sida spinosa	prickly sida	herb	FACU	*
Silphium perfoliatum	cup plant	herb	FACW-	4
Solanum carolinense	horse-nettle	herb	FACU-	0
Solidago canadensis	Canada goldenrod	herb	FACU	1
Solidago rigida	rigid goldenrod	herb	FACU-	4
Toxicodendron radicans	poison ivy	herb	FAC+	1
Tridens flavus	purple-top	herb	UPL	1

Species list continued on the following page.

ROUTINE ON-SITE WETLAND DETERMINATION
Site 11 (page 6 of 6)

Field Investigators: Keene, Ketzner, and Marcum
Dates: October 5 - 6, 2011
Project Name: FAP 857 (IL 14)
State: Illinois **County:** Saline **Applicant:** IDOT District 9
Site Name: Forbland
Legal Description: SW/4, Sec. 17, T. 9S., R. 6E.
Location: This area is found in the northeast part of the monitoring site, north of the drainageway that bisects the site and east of the old railroad embankment.

SPECIES LIST (Dominant species and strata indicated by bold)

Scientific name	Common name	Stratum	Wetland indicator status	Coefficient of conservatism
Trifolium repens	white clover	herb	FACU+	*
Ulmus americana	American elm	shrub, herb	FACW-	5
Verbena hastata	blue vervain	herb	FACW+	3
Vernonia gigantea	tall ironweed	herb	FAC	4
Vitis cinerea	winter grape	woody vine	FACW-	4
Xanthium strumarium	cockle bur	herb	FAC	0

* Non-native species
♣Planted tree species

mCv = 2.6 (with planted tree species)
FQI = 23.1 (with planted tree species)
mCv = 2.4 (without planted tree species)
FQI = 21.2 (without planted tree species)

Determined by: Dennis J. Keene (soils and hydrology)
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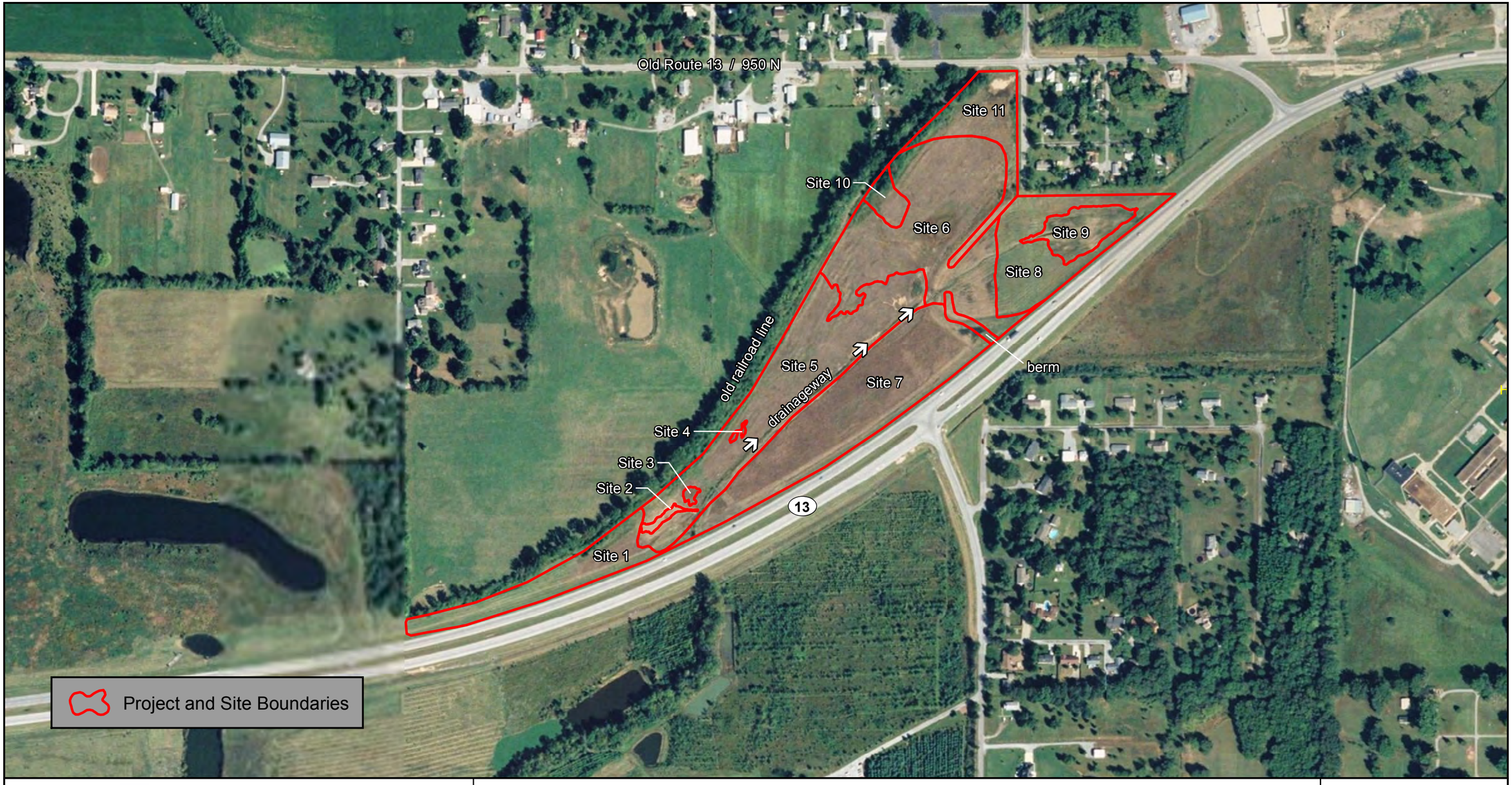

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Mitigation Monitoring Map
IL Route 13, Harrisburg Site (FAP 332)
Saline County

Seq. No: 90

0 Meters 100
1 : 4,800

0 Feet 400
1 inch : 400 feet

02/2012

Figure 3

N
W E
S

Appendix 2:
Wetland Mitigation Monitoring Photos for FAS 857 (IL 14)

Site 1 non-wetland

Site 2 wetland

Site 3 wetland

Site 4 wetland

Site 5 wetland

Site 6 wetland

Site 7 wetland

Site 8 wetland

Site 9 wetland

Site 10 wetland

Site 11 mainly non-wetland

Phragmites australis and *Typha* spp. in drainageway (needing control)

Phragmites australis on north border near old railroad embankment (needing control)

Water control structure in drainageway (needs more boards or a high solid material barrier installed to increase water level)